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THE PLASTICS INDUSTRY

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From 1931 to 1941 the production of condensation plastics was increased considerably, with phenoplastics based on phenol and cresol raw materials predominant in this group. Gradually the assortment of products was increased and covered almost all of the most important types, including pressed powder, textolite, voloknit [sic. fiberite?], and a considerable quantity of industrial resins for lacquers and paints.

The production of aminoplastics had just been started in the Soviet Union prior to the war. One plant which produced these products on a large scale existed. The assortment of processed pressed materials was still insufficient and consisted of only about 10-15 types. For example, the assortment lacked pressed powder with high isolation properties. The technological process and molding in the production of phenol-formaldehyde resins and especially phenol-formaldehyde pressed powders was gradually improved, and measures were taken for the mechanization and automatization of processes, as well as their improvement and unification.

The main development in plastics based on cellulose esters was in the production of nitrocellulose and celluloid for triplex-type shatter-proof glass and for haberdashery and games. Production of benzylcellulose was also organised on a large scale. Ethylcellulose and acetycellulose were still not produced on an industrial scale.

Bituminous plastics were greatly developed during this period. The output of this product increased five to six times. The products made from bituminous plastics were principally used for battery tanks and for supplying the automobile industry.

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At the beginning of the war, polychlorvinyl and acrylic resins, in small quantities, were the only polymerization plastics produced in the USSR. Scientific research was being conducted to develop the technology of production of the remaining types of polymerization plastics (vinyl-acetate, polystyrol, etc.).

During the war, a second base for the plastics industry was created in the East. It included plants for the production of some of the most important types of raw materials, for the production of phenol-formaldehyde pressed powders, industrial resins, and plastic objects from phenolplastics.

The production of condensation plastics during these years was most important. During World War II the gross output of condensation plastics more than doubled. The output of phenol-formaldehyde pressed powders showed special growth. There was also a great increase in industrial resins while the increase in the production of textolite and faolite was relatively insignificant.

In polymerization plastics the production of acrylic resins, polychlorvinyl and masticated rubber for cable production, as well as some other products, was developed on a very large scale.

During the war, the plastics industry not only guaranteed a supply for the army and navy, but also significantly strengthened and increased its power, created new plants, expanded the assortment of products, modernized and completed the technological process of production of resin, pressed powders, and fibrous materials.

The new Five-Year Plan for the development of the plastics industry not only calls for the restoration and expansion of existing plants, but also for the construction of new production points in the Soviet Union.

For the most rapid utilization of productive power freed from war production during the current Five-Year-Plan it is necessary to create a domestic base for the production of molds and presses.

Three plants are mentioned: Karbolit, Karacharovskiy, and the Plant imeni Komsomol'skiy Pravda.

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